DOCUMENT RESUME

ED 133 959 EC 092 867

TITLE	Gross Motor Development.
INSTITUTION	Florida Learning Resources System/CROWN, Jacksonville.
PUB DATE	75
NOTE	28p.
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Elementary Education; Games; *Identification; *Learning Activities; *Motor Development; *Perceptual Motor Learning; Physical Development; *Physically Handicapped; Psychomotor Skills; Remedial Instruction; *Teaching Techniques

ABSTRACT

The document is designed to help teachers identify and remediate gross motor development deficits in elementary school students. A definition of gross motor development and a checklist of gross motor skills are provided. Sections cover the following topics: successful teaching techniques; activities for perceptual-motor training; activities for body awareness, poor coordination, sensory-motor skills, and eye-hand coordination; and activities for the walking beam; and games for fitness. (IM)

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GROSS MOTOR DEVELOPMENT

DEVELOPED BY:

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SERVING:

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EC092867

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GROSS MOTOR SKILLS

INTRODUCTION

THIS PACKET IS DESIGNED TO HELP TEACHERS DEAL MORE EFFECTIVELY WITH THE AREA OF GROSS MOTOR DEVELOPMENT. ALONG WITH A DEFINITION THE CONCEPT OF GROSS MOTOR DEVELOPMENT IS BROKEN DOWN INTO SMALLER COMPONENTS, ALLOWING THE TEACHER IN MORE ACCURATELY AND SPECIFICALLY IDENTIFY AND REMEDIATE DEFICIT AREAS.

INFORMAL DIAGNOSTIC INSTRUMENTS ARE INCLUDED, AS WELL AS ACTIVITIES AND TECHNIQUES FOR REMEDIATION.

THE INFORMATION CONTAINED HEREIN HAS BEEN COLLECTED OVER A NUMBER OF YEARS FROM A VARIETY OF SOURCES: ARTICLES AND IDEAS SUBMITTED BY SPECIAL EDUCATORS WHICH THEY THEMSELVES ORIGINATED OR FOUND USEFUL.... CLIPPED FROM VARIOUS PUBLICATIONS, HANDOUTS FROM UNIVERSITY COURCES AND CONSULTANTS, ETC.

WE REGRET THAT, DUE TO THE MEANS BY WHICH THESE IDEAS WERE COLLECTED, THE ORIGINAL AUTHORS ARE NOT ALWAYS CREDITED AS THIS INFORMATION WAS NOT AVAILABLE TO US.

FLRS/CROWN
JACKSONVILLE, FLORIDA

SUMMER, 1975

GROSS MOTOR DEVELOPMENT

GROSS MOTOR DEVELOPMENT - development and awareness of large muscle activity.

A. Development & control of body parts (arms, legs, trunk, etc.).

B. Body Awareness - what a child knows and how he feels about his body.

   1. Body Image - what a child feels about his body (is it attractive, too large, too small, etc.).
   2. Body Concept - what the child actually knows about the body and its functions.
   3. Body Schema - the ability of the child to unconsciously interpret the position of his body at a given time from tactile experiences and sensations arising from the body.

OCCUPATIONAL THERAPY

Gross Motor Skills

Name:
Age:
Disability:
Apparatus:

Scoring:
0 - Cannot Do At All
1 - Cannot Do Well
2 - Can Do Well

	Date		Comments		Comments
1. Rolling:	over and over				
2. Crawling:	forward				
	backward				
3. Squatting:	With movement				
4. Walking:	on a line				
	in a ladder				
5. Stepping:	on a line				
	into circles, etc.				
6. Jumping:	over a line				
	over objects				
7. Hopping:	on one foot (L)				
	(R)				
8. Standing:	on one foot (L)				
	on one foot (R)				
9. Balance Board:	forward				
	side ways				
	backwards				
10. Rolling a ball					
11. Throwing a ball					
12. Catching a ball					
13. Running					
14. Skipping					
15. Immitation of Movements					

THE CHILD AND HIS DEVELOPMENT*

Characteristics of Children and Implications for Physical Education

Kindergarten and First Grade

CHARACTERISTICS	PROGRAM NEEDS AND IMPLICATIONS
Noisy, constantly active, egocentric, exhibitionist. Imitative and imaginative. Wants attention.	Vigorous games and stunts. Games with individual roles-hunting, dramatic activities story plays. Few team games or relays.
Large muscles more developed, game skills not developed. Naturally rhythmical.	Basic movement. Fundemental skills of throwing, catching, bouncing balls. Use of music and rhythm with skills. Creative rhythms. Simple stunts.
No sex differences in interest.	Same activities for both boys and girls.
Short attention span. Fatigues easily.	Change activity often. Short explanations. Use activities of brief duration. Provide short rest periods or include activities of moderate vigor to allow for recovery.
Sensitive and individualistic. The "I" concept is very important.	Needs to learn to take turns, share with others. Learn to win, lose, or be caught gracefully.
Is interested in what his body can do. Curious.	Movement experiences. Attention to basic movement.
Eye-hand coordination developing.	Needs opportunity to handle objects such as balls, bean bags, hoops, etc.
Perceptual-motor areas important.	Needs practice in balance, unilateral, bilateral, and cross-lateral movements.

*Dauer, Vistor P., Dynamic Physical Education for Elementary School Children Third edition. Burgess Publishing Company, Minneopolis, Minnesota: 1968.

ACTIVITY OUTLINE FOR EXCEPTIONAL STUDENTS

1. Basic Movement and Fundamental Skills
Exploratory movement on command, exploratory movement with drum beat or other percussion for command, exploratory movement with music, interpretive and creative movement.

2. Rhythmical Activities
Fundamental rhythms, creative movement and rhythms, singing games, and folk dances, mimetics, rhythmic games, square dance, social dance, story games, dramatic plays.

3. Games
Games of low organization, specific lead-up games for definite activities and sports such as soccer, football, softball, basketball, volleyball.

4. Individual and Dual Activities
Archery, shuffleboard, tetherball, beanball, handball, bowling, track and field, tennis, golf, croquet, horseshoes, quoits.

5. Stunts, Tumbling, and Apparatus Activities
Same activities as with normal children.

6. Combative Activities
Individual, small group, and team.

7. Relays
All types.

8. Physical Fitness Activities
Special Programs in addition to application of those listed in other categories included testing programs, RCAF 5 BX and XBX programs. PCPF Adult Fitness Program, Cureton's continuous movement program, interval and circuit training.

9. Aquatic Activities
Swimming, fishing, boating, canoeing, scuba diving, water skiing.

10. Winter Activities
Sledding, skiing, ice skating, snowshoe activities, hikes.

11. Miscellaneous Activities
Body mechanics, posture, remedial exercises and programs, hiking, miniature golf, camping, bike riding, paddle ball, box hockey, roller skating, punching bag activities, field trips.

SUCCESSFUL TEACHING TECHNIQUES * * * * * * *

1. Verbal direction should be kept short and simple.
2. Demonstration and teacher participation are excellent motivators and teaching tools.
3. Praise and encouragement are vital to progress.
4. Practice periods should be kept short and activities changed often.
5. New activities should be taught early in the period before fatigue sets in.
6. Visual aids are particularly effective teaching tools.
7. Patience is the teacher's prime requisite.
8. Review of skills and repetition is vital. The teacher will have to review more often when working with "normal" children.
9. Children must be continuously remotivated.
10. The teacher's goal should be to keep all children active throughout the period.
11. Little transfer of skill takes place, so don't count on it from lesson to lesson or skill to skill.
12. Moving the student through the desired motion is an excellent teaching device.
13. Instruction should be slow, deliberate, progressive, and concrete. The idea is to make haste slowly.
14. Safety practices should be stressed in each lesson.
15. Retarded children must be taught to play. Things which other children do naturally, the retarded child must learn.
16. The program must be fun for the child. Be sure he has a good time and experiences success and satisfaction. The objective is not to turn out champions, so expect the skill level to be low in some activities.
17. The basic play and recreational needs and interests of the retarded are not radically different of those with nonretarded children.
18. A group of retarded children is homogeneous in mental impairment, yet there is a great range of physical abilities and potentials within any group. There is not as much variation from the normal in physical abilities as in mental abilities. Some retarded youngsters are capable of learning relatively complex motor skills.
19. Mental age is important in the selection of activities for individual children.
20. Initiative, ingenuity and resourcefulness are indespensable.

Perceptual-Motor Training Sequence - Activities

A. Development and Coordination

1. Balance Beam

a. Walk forward, backwards, and sidewards
b. Weights on hands - kneeling - balance on 1 foot, step over stick, walk all ways with eyes closed.
c. Throw bean bag at target.
d. Bounce ball - catch while walking sideways
e. Walk on command - change directions
f. Lead with each foot - all ways.
g. Pick up eraser from middle - go on.
h. Walk all ways with eraser on head.
i. Cross step sideways with each foot leading.
j. Crawl - all fours, knees and hands, feet and hands.
k. Kneel - put eraser on head, change directions.
l. Walk forward - backward with eyes on swinging or moving ball.
m. Hop on beam - one foot each way.
n. Alternate hopping the beam.
o. Skip the beam.
p. Gallop the beam.

B. Body Image Differentiation

1. Body parts differentiation

a. Head-life, stomach-back.
b. Trunk:
    1. Sway - sitting - standing
    2. Stomach - head to hand
    3. Back - hand reach knee
    4. Cat stretch - arch back and down
c. Hip:
    1. Back - leg lift, leg rotation
    2. Stomach - leg lift, leg rotation
d. Leg:
    1. On back - knees to chest and extend
    2. Stomach - knees under and extend
    3. Side - bind knee, draw up to side, extend down
        a. Swing leg forward - backward
    4. Standing - leg balance forward and backward
    5. Hands and Knees
        a. Extend leg back
        b. Leg rotation, side up and down
        c. Extend back - foot in front

e. Knees:
   1. Extend leg to side and back
   2. Extend - put feet in front
   3. Knee wlak (on mat) - forward, backward, sideward
   4. On stomach - bend knees - draw up to buttocks - extend slowly
   5. On back - slide feet along floor to buttocks, extend
   6. On side - slide feet along floor to buttocks, extend

f. Ankle and foot - movements
g. Shoulder - hunch and relax
h. Arm - forward, backward, circle, cross midline
i. Wrist - back, forth, circle
j. Fingers - grasp, release

C. Position in Space (locomotion)

1. Rolling

a. Log - holding objects in hands or between feet
b. Ball - arms around knees.

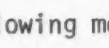
2. Somersaults

a. Airplane - rock on stomach
b. Crawl - body arched
c. Homolateral - hold stick in both hands, right knee and right arm head and stick turn to right (reverse).
d. Bear Walk - right knee, right hand (look at hand), other side the same
e. Cross-Pattern - (crawl) - right knee and left hand (look at hand). Other side the same.
f. Lame Dog
g. Angels in Snow
h. Jumping Jacks
i. Trees - sway from waist
j. Crabwalk - hands, feet backwards, stomach straight
k. Seal walk - drag feet, walk on hand, arms straight
l. Toe touch - (to count)
m. Push-ups - (to knees)
n. Tailor Sit - Cross legs, sit and stand
o. Rabbit Hop - squat, hop feet to hand
p. Inchworm
q. Thread needle - make circle with hands, step through one foot at a time.
r. Kangaroo hop
s. Frog Hop
t. Ostrich walk - patterned walk, march, skip
u. Hop - standing on one foot, jumping on two feet, alternating hop
v. Jump rope

W. Trampoline - lying face down, teacher bounces child
lying on back - teacher bounces child
sitting - teacher bounces child
hands and knees - teacher bounces child
knees - teacher and child bounce, matches clap to bounce, alternation front and back clap
standing - matches clap to bounce, alternation clap
Jumping Jack
Mexican Hat Dance - alternation of feet, front and back
Knee drop - bounce back up on feet
Seat drop - bounce back up on feet

D. Ocular Control

1. Eye Sweep

a. Eye following moving target  and convergence
b. Swinging ball - back and forth around head, touch on command
c. Tracking - eye-hand following moving target
d. Right hand - right eye fixation, left hand, left eye fixation
e. Moving fixation - object in a line
f. Fixation and eye sweep - from one toy squeaked at left side to another toy squeaked at right side
g. Ball throwing - through hoop

E. Form Perception

1. Forms on floor with masking tape, large figures
Circles, square, triangle, curved lines connected angles

a. Walk around form
b. Track with eye, hand, and small car

2. Use same forms at chalkboard

a. Use car and track around forms first
b. Use chalk, trace around forms
c. Add templates and chalk
d. Child copy form
e. Rhythmic writing

3. Use same forms with crayon and large paper on floor.

a. Trace lines, forms, and letters

4. Use pencil and small paper with above activities.

ACTIVITY 1: "KEEP-UP"

Child's Task: To keep balloons in the air by repeatedly striking them with various length implements.

Perceptual Considerations Influencing Motor Performance in this Task:

a. Ocular tracking.
b. Child's ability to accurately predict his performance with various length and shape implements.

ACTIVITY 2: "STATION WORK"

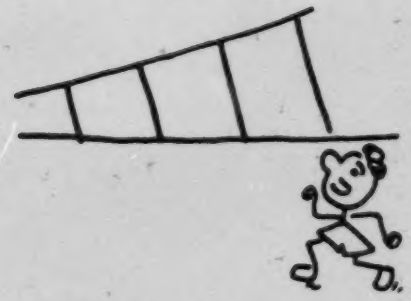
A. "RUN AND LEAP FOR HEIGHT"

Child's Task: First, to choose the highest of several colored ropes, located at various heights from the floor, that he can touch after running and leaping. Second, to compare his actual and predicted performance.

Perceptual Considerations Influencing Motor Performance in this Task:

a. The accuracy of a child's perception of his movement capabilities.

B. "RUN AND LEAP FOR DISTANCE"



Child's Task: First, to choose the widest width he feels he can leap over after a running start. Second, to compare his actual performance to his predicted performance.

Perceptual Considerations Influencing Motor Performance in this Task:

a. The accuracy of a child's perception of his movement capabilities.

C. "HIGH JUMP"

Child's Task: First, to choose the highest point on the rope which he can run and leap over successfully. Second, to compare his actual and predicted performance.

Perceptual Considerations Influencing Motor Performance in this Task:

a. The accuracy of a child's perception of his movement capabilities.

ACTIVITY 3: "AGGRAVATED ASSAULT"

Child's Task: To win a race without stepping on the floor. Each child is given two cardboard blocks. Anyone may "steal" a block from any other person. Anyone may kick a block out from under any other person. No one may touch touch another person.

Perceptual Considerations Influencing Motor Performance in this Task:

a. Child's perception of his own space and the space of others about him in a situation which is continually changing.

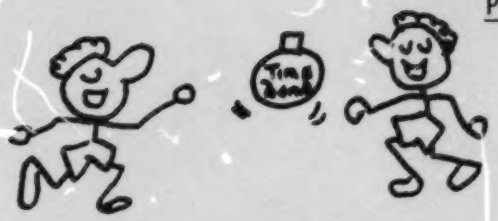
ACTIVITY 4: "ROPE JUMP"

Child's Task: While blindfolded, to listen to the sound of a rope hitting the floor, in order to attend to the auditory cues helpful in the performance of rope jumping activities.

Perceptual Considerations Influencing Motor Performance in this Task:

a. Deletion of sensory information in order to focus in on essential sensory cues.

ACTIVITY 5: "TIME BOMB"



Child's Task: To throw and catch a "time bomb."

Perceptual Considerations Influencing Motor Performance in this Task:

a. Addition of sensory information not usually present in a task, in order to facilitate performance.

ACTIVITY 6: "TWIGGY STICKS"

Child's Task: To crawl through various size and shape spaces.

Perceptual Considerations Influencing Motor Performance in this Task:

a. Accuracy of a child's perception of how much space he takes up and where his body parts are in space.

MOTOR TASKS

Body Image - Helps

motor

WHAT IS THE PROBLEM?	HELPS:
Cannot see the relationship of his body parts to that of object or other person.	Puzzle Imitation. Same as above except that children are to play with the teacher or another child. Each has identical puzzle. Child is to imitate the teacher or other child and place puzzle parts onto puzzle. If other player adds an arm, the second child is to add an arm on the same side, etc. Child will have to make transfer from the other puzzle to his own.
Cannot move one arm or leg independent of the other	Have child lie down on the floor with arms extended. Ask him to move only one arm back and forth. If he has a tendency to move both, hold one arm while he moves the other. Do the same with legs, one arm and one leg, etc.
Needs control of whole body	Crawling - crawling with a "rider".
Needs practice in control for change in position	Rhythmic jumps and swinging arms upward. Later make quarter-turns, half-turns, then full turns. Getting up from lying down position on floor: by raising heads, then necks, shoulders, etc. by quick jumps-eyes open, eyes closed from stomach down position to hands and feet.
Needs to achieve better balance Balance Beam	Stand on tiptoe on both legs - then on one leg for 10 sec. - varied by having eyes closed. Stand on one foot and swing other leg forward and backward, then from side to side. Walk on tape or chalk lines - forward, backward. Step over, cross step on tape or chalk lines.

Body Image - Helps

WHAT IS THE PROBLEM?	HELPS:
(Needs to achieve better balance Balance Beam)	Walk as described on balance beam. Walk with spoon and a potato in it, without letting the potato fall. Do game running: Jump with both feet over a cord. Same with one foot. Variations with jump rope.

HELP!!

ACTIVITIES FOR POOR COORDINATION

MARSDEN BALL

A ball is suspended on a string. The child lies on his back under the ball and follows the swinging motion with both eyes, with left eye closed, then right eye closed. As a variation, the child sometimes hits the ball with a whiffle bat as it swings toward him. The activity is designed to develop eye-hand coordination and occular mobility.

WALKING BOARD OR BALANCE BEAM

Children move across the board in a variety of ways. They move forward, backward, sideward. Activity on the walking board or beam is designed to develop balance and laterality.

TWIST BOARD

Children twist their bodies to the left and to the right. They bounce balls while on the board and also perform calisthenics on the board. Twist board activities are intended to develop flexible posture, balance and directionality.

BLACKBOARD

Children trace a lazy figure eight approximately 24 inches wide and 10 inches high. They trace circles and double circles; alternating left hand and then right. The object is to develop physically weak eye muscles and proper hand-eye coordination.

ROPE LADDER-TAPE LADDER

Rope is taped to the floor to form a ladder design approximately ten feet long. Spaces in the ladder are numbered. The child jumps with both feet into the numbered sections of the ladder following a pattern. He then hops on one foot through the same pattern and repeats the pattern again hopping on the other foot. This activity is designed to develop left-right progression and discrimination.

MARBLE TRACK

The child stands directly in front of the marble track. His eyes follow the moving marble as it moves along the track. He then tracks the marble with one eye occluded and then the other closed or covered. The purpose of this activity is to provide monocular and binocular training.

ROPE JUMPING

Children jump rope with the right foot leading first, then the left foot leading. They jump backwards and then on one foot. This activity is designed to develop arm and trunk coordination as well as body control and knowledge of body relationships.

TUMBLING

Children do a long roll, forward roll, and backward roll on the mat. The objective is to develop body awareness and coordination.

ACTIVITIES FOR SENSORY MOTOR SKILLS

Below is a thumbnail sketch of specific behavioral objectives.

MOVEMENT EDUCATION

The child will use spatial concepts such as over, under, through, around, etc., with his own body in relation to objects such as ladders, stairs, boxes, tunnels, and other equipment. This training involves the initiation and direction of movement by auditory, visual, tactile, and kinesthetic stimuli.

- Given the movement education training, each child will demonstrate each spatial concept listed above using his own design to demonstrate his mastery.

PERCEPTUAL-MOTOR MAZE

This maze is a figure pattern consisting of lines, circles, and geometric shapes taped on the floor area 42 feet. It is used with and without equipment and is designed to develop laterality, directionality and coordination.

Without equipment each child will:

- Walk, run, skip, creep, crawl and hop on the maze pattern with no more than three errors. An error is a deviation of more than one foot from the maze line or gross deviation from the specific motor skills as determined by the instructor.

- Complete the maze extending the correct arm while stating the correct direction of each turn while always maintaining balance as he progresses.

- Locating the shapes -- circles, rectangles, squares, triangles and diamonds - while walking the maze and then draw each shape on the paper and identify it correctly.

ACTIVITIES FOR MOTOR EYE-HAND COORDINATION

To help neuropathically handicapped and normal children develop and improve their motor eye-hand coordination, a modified game of Russian Handball has a 14-skill progression that can be used with children at all levels of development and with different degrees of ball-handling skill. Children can play for fun, teachers can set up tournaments, and the game can be played as a relay.

An eight-inch rubber ball should be used. Students should stand from four to six feet from a school or handball wall when playing the game. As they become more proficient, you can have them move further back. The progression follows:

1. Throw the ball with both hands against the wall (overhand or underhand) and catch it with both hands before it bounces.
2. Throw the ball with the left hand against the wall and catch it with the right hand before it bounces. (Students can use the left hand here to help in catching if their hands are to small to handle the ball, but the major effort should be with the right hand. The same applies throughout for all directions involving catching with one hand.)
3. Throw the ball with the right hand against the wall and catch it with the left before it bouces.
4. Throw the ball against the wall with one hand and catch it with both hands before it bounces.
5. Using both hands, bounce pass the ball against the wall and catch it with both hands before it bounces.
6. Bounce pass the ball off the wall using the left hand and catch it with the right hand before it bounces.
7. Bounce the ball off the wall with the right hand and catch it with the left hand before it bounces.
8. Throw the ball against the wall using both hands, let the ball bounce once, and then catch it with both hands.
9. Throw the ball against the wall using the left hand, let the ball bounce, and then catch it with the right hand.
10. Throw the ball against the wall with the right hand, let the ball bounce once, then catch it with the left hand.
11. Using both hands, throw the ball against the wall, clap once, and catch it before it bounces.
12. Using both hands, throw the ball against the wall, clap twice and catch it before it bounces.
13. Using both hands, throw the ball against the wall, clap once in front of the body, once behind the back, and catch the ball before it bounces.
14. Using both hands, throw the ball against the wall, clap once in front of the body, once behind the back, once in front of the body and catch it before it bounces.

EXERCISES ON THE WALKING BEAM
(FROM THE PHYSIOLOGY OF READINESS BY GETMAN AND KANE)
PREPARED BY GEORGE D. SPACHE AND EVELYN B. SPACHE

GENERAL INSTRUCTIONS-

Have a fixation target, such as X on the blackboard or a small picture, at eye level, opposite the end of the beam. Children should always look at this target when exercising the beam.

INDIAN WALK-

Have children walk, Indian fashion, heel touching toe, along the beam. Keep eyes fixed on the target.

BUTTERFLIES-

Using the Indain walk, spread arms out like butterfly, moving them up and down slowly, while moving along the beam.

BACKWARD WALK-

Walk backward on the beam, toe to heel fashion. Keep your eyes on the target.

BACKWARD BUTTERFLY-

Walk backward on the beam, moving arms up and down slowly, like a butterfly.

FORWARD and BACKWARD-

Walk forward until teacher or other pupil says "Stop," then reverse moving backward. Use Indian walk, heel to toe, in each direction.

FORWARD and BACKWARD-

Repeat forward and backward movements upon commands, using giant steps. Vary by using the game, "Captain, May I - - -?" or "Rover, Red Rover - - -".

LEARNING DISTANCES-

Put a red stripe across the beam at the middle, and green stripes at the 1/4 and 3/4 points. Use the Forward and Backward movements upon command; using the words - one half, one quarter, two quarters, three quarters, etc.

PERIPHERAL TARGETS-

Place the Walking Beam parallel to the wall or chalkboard. Position the beam about two feet from the wall. Put a red circle at the child's eye level on the wall or board at a point opposite the halfway mark on the beam.

Have children try to walk the beam, with arms extended to the side, until they think they are even with the red circle and can touch it, without looking in that direction.

Repeat exercise with beam placed at an angle (45 degrees or less) to the wall. Again have them try to touch the red circle without looking at it. Practice touching the side targets while walking backward as well as forward, as well as by starting from either end of the beam.

1. INDIAN WALK

SUGGESTED INSTRUCTIONS TO STUDENTS

1. Step onto the Beam at one end. Look down at the tip of my pointer a few feet ahead of you on the Beam. Now, walk Indian fashion, heel to toe, along the Beam, keeping your eyes on the tip of my pointer as I move it along in front of you. When you get to the end of the Beam, step off and return to the end of the line.

2. This time after you step onto the Beam, look at the red "x" out at the end of the string. You are again to walk Indian fashion, heel to toe, to the end of the Beam.

3. BUTTERFLIES. Now, we will repeat our Indian Walk and look at the red "x" at the end of the string. This time, while you are walking you should spread your arms out at your sides like a tightrope walker or the wings of a butterfly and move them slowly up and down. Be sure the hands are just far enough forward so that as you look at the "x" you can still see your hands and arms moving up and down OUT OF THE CORNER OF YOUR EYES.

DIRECTIONS FOR TEACHERS

1. Have the children remove their shoes for all Walking Beam activities.

2. Have the children line up and walk the Beam one at a time.

3. Place the tip of a pointer (3 or 4 feet long) on the Beam about 6 feet ahead of the child and keep directions the children attention to the tip of the pointer as each one walks the Beam.

4. Continue to move the pointer across the floor ahead of the child until the child reaches the end of the Beam.

5. Place the "Walking Beam" in position so that the "finishing end" of the Beam is at least ten feet from a wall or solid object. Attach a piece of string from the end of the Beam in a straight line, to the wall, put a red "x" or other object of interest on the wall at the far end of the string as a visual fixation target.

6. Continue to remind the children to watch their fixation target, the red "x".

2. BACKWARD WALK

SUGGESTED INSTRUCTIONS TO STUDENTS	DIRECTIONS FOR TEACHERS
1. Now you are to walk the Beam Backward, toe to heel fashion. Keep your eyes on the red "x". Don't peek over your shoulder. Try to remember where the end of the Beam is, and watch the length of the Beam in front of you as you walk backward so that you can "guess" where the end will be.	NOTE: The child must now visualize the Beam extending behind him by judging where IT OUGHT TO BE without actually looking at it. If some of the children have difficulty walking the Beam backward, have them practice walking backward in the aisles of the classroom while looking straight ahead. Help them learn to anticipate the ends of the rows of seats.
2. This time, as you walk backward Indian fashion, wave your arms up and down slowly at your side like a butterfly, and "see" them out of the corner of your eyes.	The children should now know that they SHOULD ALWAYS LOOK AT THEIR FIXATION targets.

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3. FORWARD AND BACKWARD WALK

SUGGESTED INSTRUCTIONS TO STUDENTS	DIRECTIONS FOR TEACHERS
1. Walk forward on the Beam until I say REVERSE, then go backward until I tell you FORWARD again. Then, continue walking forward. Do this with heel to toe Indian walk. "Ready: Forward - Reverse - Forward."	1. After the children develop some mastery of this routine, change your directions to: front-back, forward - backward, etc.
2. Watch your "x".	2. Repeat again using normal sized, giant, baby steps, etc. 3. This is good place for the children to play, "Captain, May I?"

4. STEPPING OFF DISTANCES

SUGGESTED INSTRUCTIONS TO STUDENTS

1. This time, using normal sized steps, I want you to walk to the red line, stop, and go backward to the green line, stop, and then go forward to the end of the Beam.

2. I have turned over the Beam so that you cannot see the colored markings. This time walk to the middle of the Beam and stop when you think your TOE is exactly in the middle of the Beam. I will check to see how close you come to the center before you go on to the end.

DIRECTIONS FOR TEACHERS

1. Divide the Beam into fractions 1/4, 1/2, etc. You may denote the various divisions by different colored lines such as: red in the middle, green at the 1/4 marks, etc. You can use these divisons to emphasize multiples and fractions after the mechanics of starting, stopping, and reversing are mastered.

2. Discuss these concepts with the children during other class activities. When you refer to the Beam, you should give more explicit commands, such as: Now, walk to the half-way mark on the Beam.

3. Turn the Beam over so the markings are on the bottom side. Repeat the stepping-off routine with no guide lines. Stress the fractional parts of the board as well as other addition and subtraction problems in arithmetic.

4. Continue the above routines until the children can perform easily while observation of their fixation target.

5. When the children can walk the Beam forward and backward, making simple judgments of their stopping positions on the Beam while their visual attention is on the distance target, they should be ready for the next routines.

5. PERIPHERAL (SIDE) TARGETS

SUGGESTED INSTRUCTIONS TO STUDENTS

1. Look at the Walking Beam beside the chalkboard. Drawn on the board, beside the halfway point of the Beam, is a red circle. Keep your eyes on the target in front of you. Walk on the Beam until you are even with the red circle - don't look at it - stop --put your finger on the circle. Now, turn your head and see how close your fingers came to the center of the circle. Lower your arms and continue walking to the end of the Beam.

2. We have placed the Beam at an angle to the chalkboard (or the wall) with an "x" at both ends of the Beam. One end of the Beam is closer to the chalkboard than the other. Begin at the FAR AWAY end of the Beam. Keep your eyes on the target. When you think you are JUST CLOSE ENOUGH to the board so that you can reach out and touch the board with your fingertips you are to STOP and try to touch the chalkboard without looking. While your arm is still extended, turn your head and look at your fingers to see how close you came to the board. Now, continue walking the end of the Beam.

3. This time start from the other end of the Beam. Keep looking at the "x". When you think you are just exactly the right distance from the chalkboard so that you can reach out and touch it with your fingertips, STOP (don't look away from the target), reach for the board-now look to see how close you are-and then continues walking to the end of the Beam.

DIRECTIONS FOR TEACHERS

1. The elaborations of this activity will include: different colored circles at the other dividing points on the board; walking the walking Beam backwards to the various stopping points, etc. At all times encourages the children to discuss and analyze the various movements on the Beam.

2. Again, emphasize that the child is to keep his eyes on the "x" target.

3. These activities where the Beam is in a diagonal position allow for further elaboration of the child's awareness of object-background relationship. Now we are not so interested in having them put their on the target as we are in helping them establish a more substantial awareness of how far away the chalkboards are.

4. Further elaborations will include: Changing the Beam in relation to the chalkboard so that the other is closer; having the children walk backward and then touch the chalkboard-from BOTH directions, etc.

5. FINAL NOTES: The Walking Beam offers many opportunities for children to release tensions and fatigues. Please permit your children to use the Beam quietly whenever they are restless, fatigued, irritable, frustrated or bored. You may be pleasantly surprised to discover the "release value" of the Beam.

FUN WITH FITNESS

Children can discover a variety of activities when they are given learning opportunities to explore with small equipment.

The teacher's role is simple. You need not be skilled in movement and you do NOT demonstrate. Verbal presentation of the problem is suggested - "Who can?" "Can you?" "Show me." Children express themselves individually in movement in reply to the rpoblems presented, and they can achieve satisfactory success for themselves.

EQUIPMENT
Use discarded inner tubes, (patched at gas service station) and bicycle and automobile tires (washed and painted with various colors of acrylic paint).

Primary children love to work with inner tubes as they are easier to handle. Several large truck tires are recommended for small group exploration. Tires can be stacked one on another, scattered and use horizontally and vertically. When not in use, store in a corner of the play area.

ACTIVITY PLACE
Hallway, multi-purpose room, outdoor area, or gymnasium.

PROCEDURE
A tire for each child is ideal, but three or four children can work well with one tire. Make the following suggestions to begin activity: "Get a tire and roll it to your space (scattered formation)." "Think of all the things you can do with your tire." After children have had time to explore, call out the word, freeze, meaning STOP! LOOK! LISTEN! Continue exploration.

1. Place the tire flat on the floor. Find a way to get over, through and around it.
2. Can you jump in and out of the tire, hop or walk, on one foot, on two feet?
3. Who can bounce on the edges of the tire (lightly, heavjly)? Do you bend your knees when you land on the tire? Place both hands in the tire and walk around it.
4. Who can roll the tire to a different space (fast, slow). Run beside the tire as it rolls, being careful not to collide with another's tire. Leapfrog or straddle jump over the rolling tire. Can you crawl through the rolling tire? Roll your tire in a circle, a square, a triangle? Can you skip or gallop when you roll your tire?
5. Show how you can balance by standing on one foot on the edge of your tire. What different ways can you balance using another pa[illegible]f your body?
6. Tires are arranged in pairs, side by side. Run down the line of tires one foot in each tire, you can run around (skip, gallop, slide).
7. Tires are arranged in pairs, side by side. Run down the line of tires one foot in each tire, run with a weave. Be an animal going through the tires.
8. Place three or four tires on top of each other. Can you toss a ball or beanbag into the center? Can you get in the center and then climb out? Try to find other ways to explore with your tire.

Boys and girls in intermediate grades can develop relays, stunts and games with their tire or tubes. They may want to have another type of small equipment to use with their tires-ball, beanbag, rope or wand. A few examples are:

TUG-OF-WAR Two children grasp the side of the tire and pull (two hands, one hand).

RELAYS A small squad of boys and girls (8 or 12) is best. Squad divides into two teams for competition (4 or 6 on a team). This way all the children will be active most of the time. Relay rounds:

1. Throw the tire over a post.
2. Carry the tire.
3. Roll it to the wall and back.
4. Place one foot in the tire and drag it.
5. Run to the tire, pick it up, place it over your head and shoulders, and let it fall to the floor.

Encourage each squad to create and present a relay.

OBSTACLE RACE

An obstacle course can be set up using twelve or more tires place in various positions. Course is run against the clock or can be done just for the exercise. Boys and girls can design their own obstacle races.